

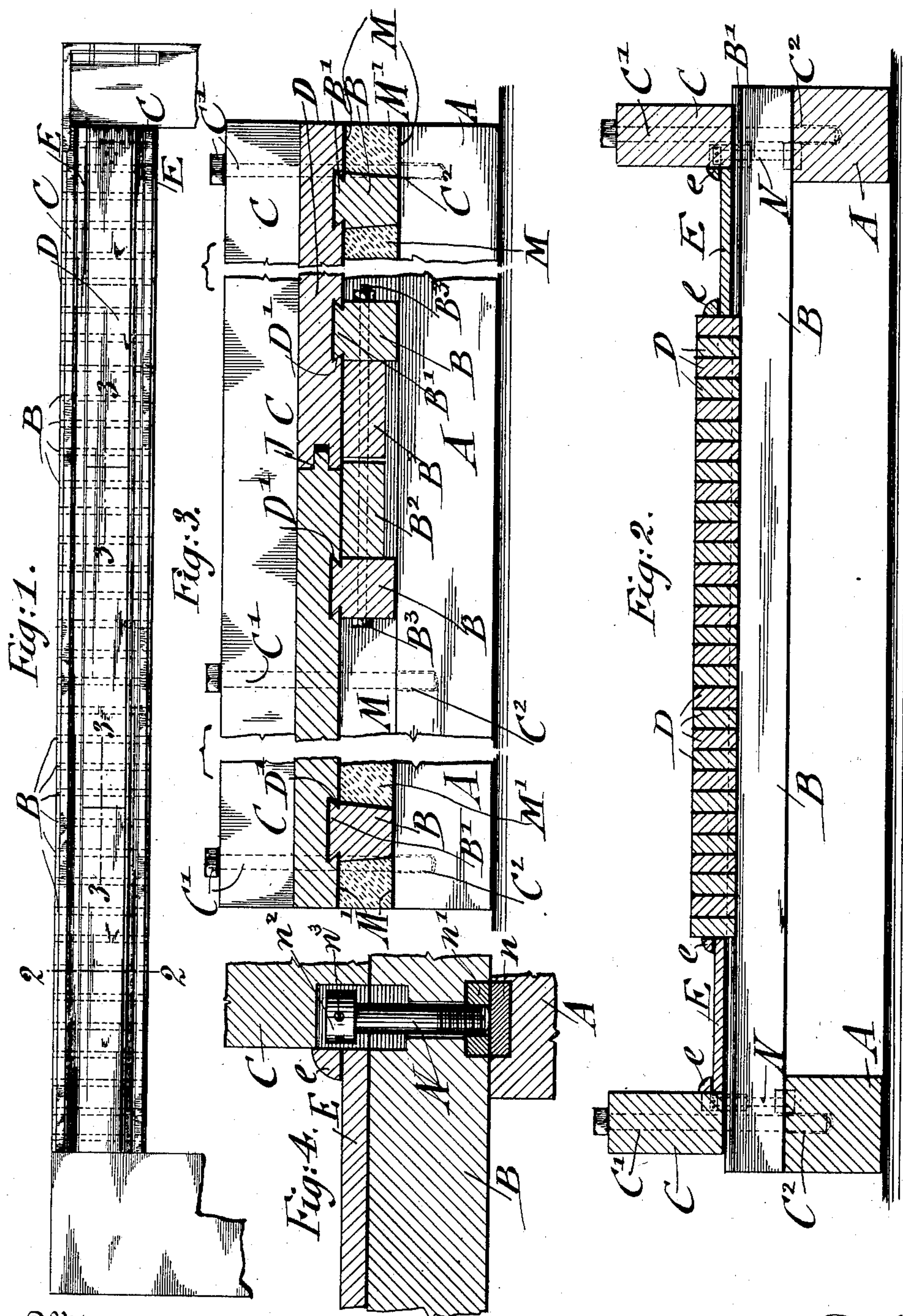
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ANTON HERBST, DEC'D.
ANNA HERBST, ADMINISTRATRIX.
BOWLING ALLEY.

APPLICATION FILED MAY 12, 1903,

NO MODEL.



Witnesses
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KUNIGUNDE ECKERT, OF BROOKLYN, NEW YORK.

BOWLING-ALLEY.

SPECIFICATION forming part of Letters Patent No. 757,922, dated April 19, 1904.

Application filed May 12, 1903. Serial No. 156,772. (No model.)

To all whom it may concern:

Be it known that I, ANTON HERBST, a citizen of the United States, residing in New York, borough of Brooklyn, and State of New York, have invented certain new and useful Improvements in Bowling-Alleys, of which the following is a specification.

This invention relates to certain improvements in bowling-alleys, by which the same can be constructed without the use of nails so as to be capable of being planed off a number of times, in connection with means for permitting the leveling of the alley in case the same should get out of level either by the settling of the supporting-beams or by the planing-off operation.

One of the objectionable features of bowling-alleys as heretofore constructed is that the longitudinal strips of wood which are placed upright alongside of each other are nailed together at their bases, and consequently as the surface of the alley gets worn and is planed off they can only be used until the planing off meets the nails, after which the strips composing the alley have to be renewed.

The object of this invention is to overcome this defect and to construct a bowling-alley in which the longitudinal strips which compose the alley are held together without nails in a very reliable and compact manner, so as to permit the planing off of the alley for a greater length of time, and so lengthen the life of the same, than the alleys heretofore used, and for this purpose the invention consists of a bowling-alley in which the longitudinal strips composing the same are provided with transverse dovetail recesses in their base and supported on correspondingly transverse sleepers, which again rest on longitudinal beams extending at both sides of the alley, said beams supporting the side beams of the gutters. The invention consists, further, of means for leveling off the alley located on said longitudinal beams, as will be fully described hereinafter and finally pointed out in the claims.

In the accompanying drawings, Figure 1

represents a plan view of my improved bowling-alley, showing the full length of the same.

Fig. 2 is a vertical transverse section of the same on line 2 2, Fig. 1. Fig. 3 is a detail vertical longitudinal section on line 3 3, Fig. 1, showing the means for connecting the longitudinal strips; and Fig. 4 is a detail vertical transverse section showing the mechanism for leveling the alley proper.

Similar letters of reference indicate corresponding parts.

My improved bowling-alley is constructed of longitudinal beams A, one at each side of the alley, on which are supported the transverse sleepers B, which are attached to the beams, in connection with the gutter-beams C, by fastening-bolts C', that pass through the sleepers and engage by their threaded lower ends screw-threaded recesses C² of the longitudinal beams A, as shown clearly in Fig. 2. The sleepers B are dovetailed at the upper ends B', so as to engage dovetailed recesses D' at the under side of the upright longitudinal strips D, which form the surface of the alley proper. Between the sides of the alley formed by the strips D and the gutter-beams C are interposed boards E, provided with rounded-off cleats e at both sides, so as to prevent the settling of dust or other sediments at the meeting-points of the gutter-boards E with the side strips of the alley and gutter-beams. The longitudinal strips D of the alley are about twenty feet in length and provided at their abutting ends with tongue-and-groove joints J, as shown in Fig. 3, which are rigidly supported by means of blocks B², that are interposed between the adjacent sleepers B and connected by transverse bolts B³. The space M below the strips D and between the transverse sleepers B and the longitudinal beams A is filled up with concrete M', which forms a rigid support and deadens the noise produced by the rolling of the balls over the alley. The lower part of the transverse sleepers B is made tapering, so as to permit the lifting up of the alley out of the transverse beams A in case of repairs or in case it is necessary to replace some of the strips.

The leveling up of the alley is accomplished by means of leveling-screws N, which are located in recesses at the ends of the sleepers B and the inner lower corner of the gutter-beams C, as shown in Fig. 4. The lower end of the screw rests on a metal block or seat n , that is seated in the longitudinal beam A, the threaded end engaging an interiorly-threaded nut n' , that is set at the under side of the sleepers B. The head n^2 of the leveling-bolt N is provided with holes n^3 , so that on removing the adjacent corner-cleat e of the gutter the leveling-screw can be readily turned by means of a rod inserted into the holes n^3 .
 15 By means of the screw-bolts the alley can be leveled as required in case it should have settled by use.

By the reliable support of the longitudinal strips that compose the alley on the sleepers due to the dovetail connections and the gutter-boards interposed between the gutter-beams and the sides of the alley the longitudinal strips of the alley are firmly held in position without the nail connections heretofore in use, while by the slotted support for the tongue-and-groove joint of the longitudinal strips the abutting end portions of the strips are firmly supported against any change in longitudinal or lateral direction. The concrete filling between the sleepers and beams deadens the noise of the balls and imparts greater rigidity to the structure, while, lastly, the arrangement of the leveling-screws permits the leveling from time to time.

35 My improved alley may be built in the shop complete and then taken apart and the parts again assembled at the place where the alley is to be permanently placed. This could not be done heretofore when employing nails, and
 40 offers many advantages, among which the careful workmanship of the men in the shop stands preëminent, while at the same time the saving of time is considerable.

Having thus described my invention, I claim
 45 as new and desire to secure by Letters Patent—

1. In a bowling-alley, the combination, with longitudinal beams, transverse sleepers supported on the same and provided with dovetail upper ends, an alley proper consisting of
 50 parallel longitudinal strips provided with transverse dovetail recesses engaging the dovetail upper ends of the sleepers, said longitudinal strips being made in sections, the

abutting ends of which are provided with tongue-and-groove joints, blocks below each abutting end of each section, and means connecting the blocks, substantially as set forth. 55

2. In a bowling-alley, the combination with the longitudinal supporting-beams having recesses provided with metallic blocks, transverse sleepers provided with screw-nuts and with dovetailed upper ends, parallel longitudinal strips forming the alley proper, and having dovetailed recesses in their lower sides arranged certain distances apart corresponding to the distance between the transverse sleepers, and engaging with the dovetail upper ends thereof, of leveling-screws resting on the metallic blocks of the longitudinal beams and engaging the screw-nuts of the sleepers, so as to permit the adjustment of the sleepers and alley proper for properly leveling the latter, substantially as set forth. 60 65 70

3. In a bowling-alley, the combination, with longitudinal beams and transverse sleepers supported on the same, of an alley proper consisting of parallel longitudinal strips, the ends of which are provided with tongue-and-groove joints, blocks below each abutting end of the longitudinal strips, means connecting the blocks, and means for attaching said alley proper to the transverse sleepers, substantially as set forth. 75 80

4. In a bowling-alley, the combination, with longitudinal supporting-beams having recesses provided with metallic blocks, of transverse sleepers provided with screw-nuts supported on said longitudinal beams, parallel longitudinal strips forming the alley proper supported on said sleepers, gutter-beams at the lateral ends of said sleepers provided with recesses, leveling-screws adjustable in the recesses of the gutter-beams resting on the metallic blocks of the longitudinal beams and engaging the screws of the sleepers so as to permit the adjustment of the sleepers and alley proper for properly leveling the latter, substantially as set forth. 85 90 95

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses. 100

ANTON HERBST.

Witnesses:

PAUL GOEPEL,
 C. P. GOEPEL.